

Wednesday, 17/02/2009 10:19:11 AM
e Dawson

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services
 Job Number : 45830
 Estimate Number : 13032
 P.O. Number :
 This Issue : 17/02/2009 S.O. No. :
 Prsht Rev. : NC
 First Issue : / / Type : SMALL /MED FAB
 Previous Run : 45677
 Drawing Name : FLANGE ASS'Y
 Part Number : D3651043
 Drawing Number : D3651 REV.B
 Project Number : N/A
 Drawing Revision : B
 Material :
 Due Date : 03/03/2009 Qty: 6 Um: Each
 Written By :
 Checked & Approved By : 5009.02.17
 Comment : Est Rev:A New Issue 07-09-27 DD verified by: EC
 Est Rev:B ECN 1113P 08-01-22 DD
 Est Rev:C ecn1162 08-04-02 DD verified by: EC

Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 M304S26GA 304/316 0.018 SHEET



Comment: Qty.: 0.2573 sf(s)/Unit Total : 1.5435 sf(s)
 304/316 SS sheet 26 ga (0.018" thick)
 Batch: 100390 RB 9-5-22

-7 (6)
 -5 (6)

(FOR D3651-7)

2.0 WATER JET FLOW WATER JET



Comment: FLOW WATER JET

1-Cut as per Dwg D3651 (D3651-7)

Dwg Rev: BProg Rev: B RB 9-5-22

2-Deburr if necessary

IDENTIFY AS D3651-7

~~RB 9-5-22~~

3.0 QC2 INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

4.0 QC8 SECOND CHECK



Comment: SECOND CHECK

S 09/05/25 (40)
 -7

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 17/02/2009 10:19:11 AM
User: Julie Dawson

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: FLANGE ASS'Y

Job Number: 45830

Part Number: D3651043

Job Number:



Seq. #: Machine Or Operation: Description :

5.0 M304S26GA 304/316 0.018 SHEET



Comment: Qty.: 0.2573 sf(s)/Unit Total : 1.5435 sf(s)

304/316 SS sheet 26 ga (0.018" thick)

Batch: 108398 B 9-5-25

(FOR D3651-5)

6.0 WATER JET FLOW WATER JET



Comment: FLOW WATER JET

1-Cut as per Dwg D3651 (D3651-5)

Dwg Rev: B

Prog Rev: B

2-Deburr if necessary

Identify as D3651-5

7.0 QC2 INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

8.0 QC8 SECOND CHECK



Comment: SECOND CHECK

9.0 BRAKE NC NC BRAKE



Comment: NC BRAKE

Form D3651-5 and D3651-7 as per Dwg D3651

10.0 QC5 INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

11.0 LARGE FAB 1 LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

Weld assembly as per dwg D3651

609.06.01

X6

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 17/02/2009 10:19:11 AM
User: Julie Dawson

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: FLANGE ASS'Y

Job Number: 45830

Part Number: D3651043

Job Number:



Seq. #: Machine Or Operation: Description :

12.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

PD 09-06-02 (6)

13.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

S 09/06/02 (6)

14.0

D36513

Base



Comment: Qty.: 1.0000 Each(s)/Unit Total: 6.0000 Each(s)

BASE

B47873 (4x)

B44941 (1x)

B48360 (1x)

15.0

MS20427M33

Rivet



Comment: Qty.: 16.0000 Each(s)/Unit Total: 96.0000 Each(s)

Rivet

M110022

EP09/06/04

16.0

MS210603K

Nut Plate



Comment: Qty.: 8.0000 Each(s)/Unit Total: 48.0000 Each(s)

Nut Plate

M1109590

EP09/06/04

17.0

CR3523402

RIVET



Comment: Qty.: 57.0000 Each(s)/Unit Total: 342.0000 Each(s)

RIVET

batch: M110914x211 / m111127x131

FF 09-06-11 (6)

18.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

Assemble as per dwg D3651

EP09/06/04 (6)

FF 09-06-11 (6)

19.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

S 09/06/12 (6)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 17/02/2009 10:19:11 AM
User: Julie Dawson

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: FLANGE ASS'Y

Job Number: 45830

Part Number: D3651043

Job Number:



Seq. #:

Machine Or Operation:

Description :

20.0

PACKAGING 1

PACKAGING RESOURCE #1



(BX)

Comment: PACKAGING RESOURCE #1

Identify and stock

Location: 189

9/6/12

S/D

21.0

QC21

FINAL INSPECTION/W/O RELEASE



09/06/12

Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



MF 09-06-12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order: 45830
Description: Top Flange		Part Number: D3651-5
Inspection Dwg: D3651	Rev: B	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.098	+0.004/-0.001	.101	X			
Ø0.129	+0.005/-0.001	.131	X			
0.26	+/-0.030	.264	X			
0.26	+/-0.030	.263	X			
2.21	+/-0.030	2.205	X			
1.66	+/-0.030	1.654	X			
3.16	+/-0.030	3.157	X			
0.36	+/-0.030	.360	X			
0.33	+/-0.030	.331	X			
0.500	+/-0.010	.500	X			
0.33	+/-0.030	.331	X			
0.500	+/-0.010	.500	X			
0.450	+/-0.010	.448	X			
0.19	+/-0.030	.191	X			
0.98	+/-0.030	.982	X			
0.48	+/-0.030	.482	X			
0.25	+/-0.030	.249	X			

Measured by: IB	Audited by: S	Prototype Approval:	N/A
Date: 9-5-05	Date: 09/05/05	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	08.10.07	New Issue	KJ/DD	IB

DART AEROSPACE LTD		Work Order:	45830
Description: Bottom Flange		Part Number:	D3651-7
Inspection Dwg: D3651 Rev: B		Page 1 of 1	

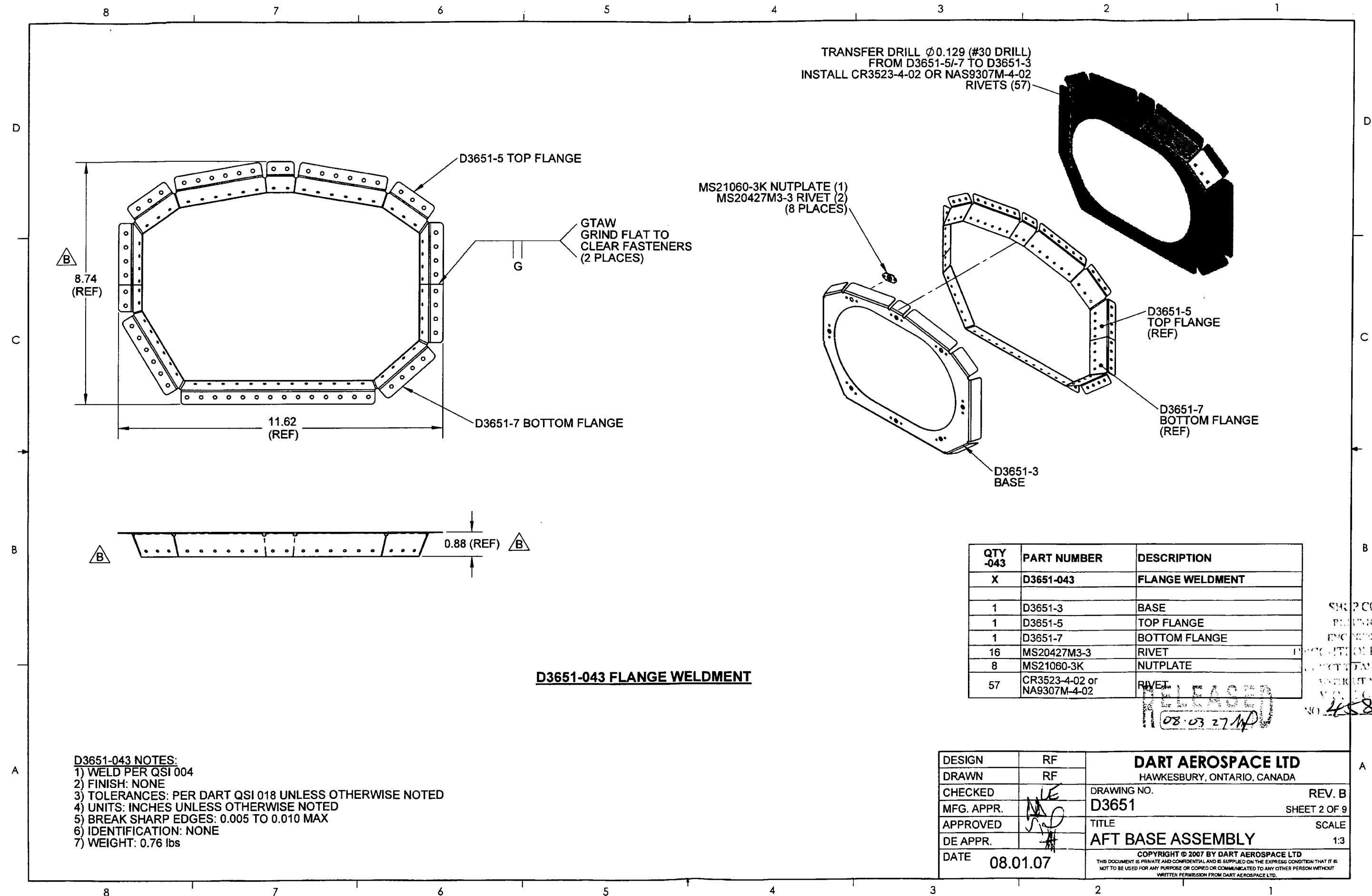
FIRST ARTICLE INSPECTION CHECKLIST

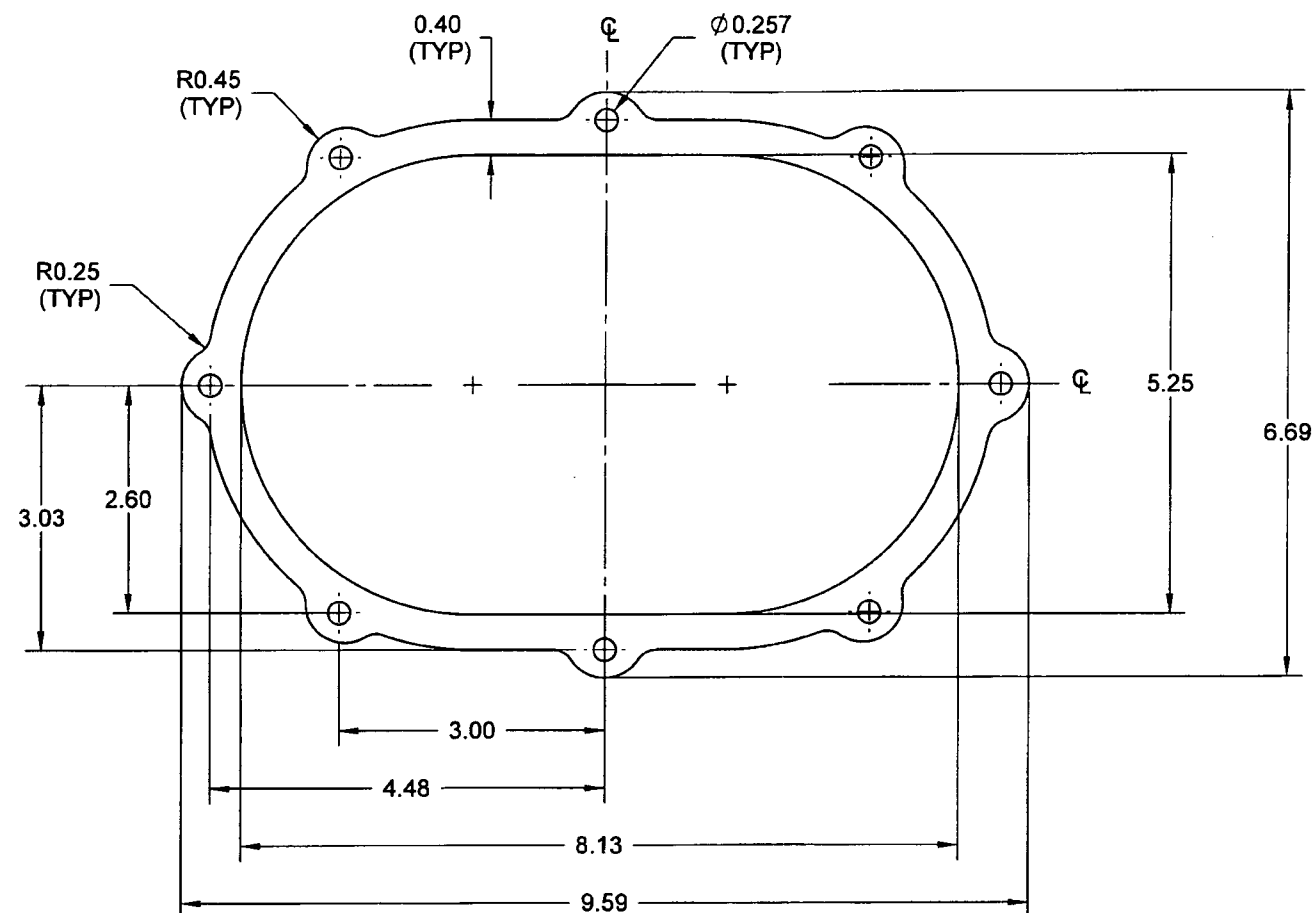
☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.098	+0.004/-0.001	.101	X			
Ø0.129	+0.005/-0.001	.131	X			
0.26	+/-0.030	.26	X			
0.500	+/-0.010	.499	L			
0.19	+/-0.030	.190	✓			
0.450	+/-0.010	.452	✓			
2.10	+/-0.030	2.102	✓			
2.31	+/-0.030	2.311	✓			
6.94	+/-0.030	6.942	✓			
0.23	+/-0.030	.226	X			
3.09	+/-0.030	3.093	X			
0.29	+/-0.030	.289	X			
0.96	+/-0.030	.96	✓			
0.24	+/-0.030	.243	✓			
.018	+/- .010	.019	✓			

Measured by: IB	Audited by: S	Prototype Approval:	N/A
Date: 9-5-25	Date: 09/05/25	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	08.04.17	New Issue	KJ/DD	DD





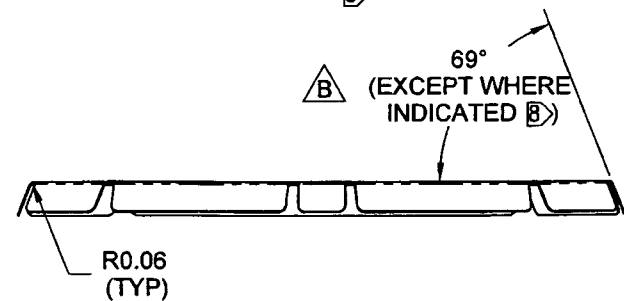
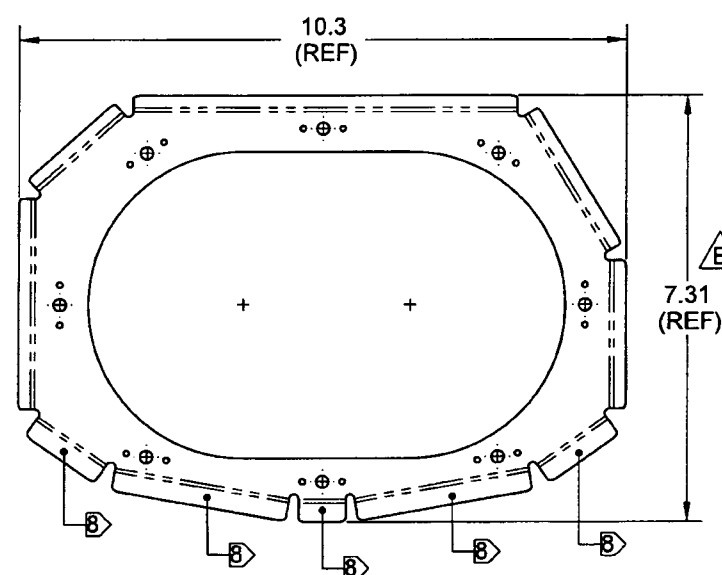
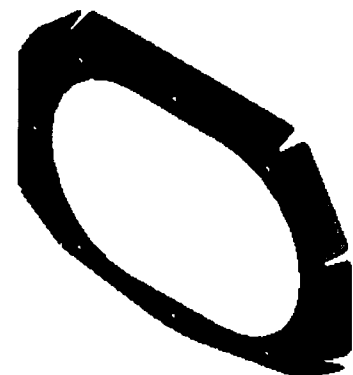
D3651-1 GASKET

NOTES:

- 1) MATERIAL: THERMO-CHEM P/N G-89, (REF. 0.060 THICK)
POSSIBLE SUPPLIER: A.R. THOMSON GROUP
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) PART IS SYMMETRIC ABOUT ϕ
- 8) WEIGHT: 0.09 lbs

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>[Signature]</i>	D3651	SHEET 3 OF 9
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	AFT BASE ASSEMBLY	1:2
DATE 08.01.07		COPYRIGHT © 2007 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

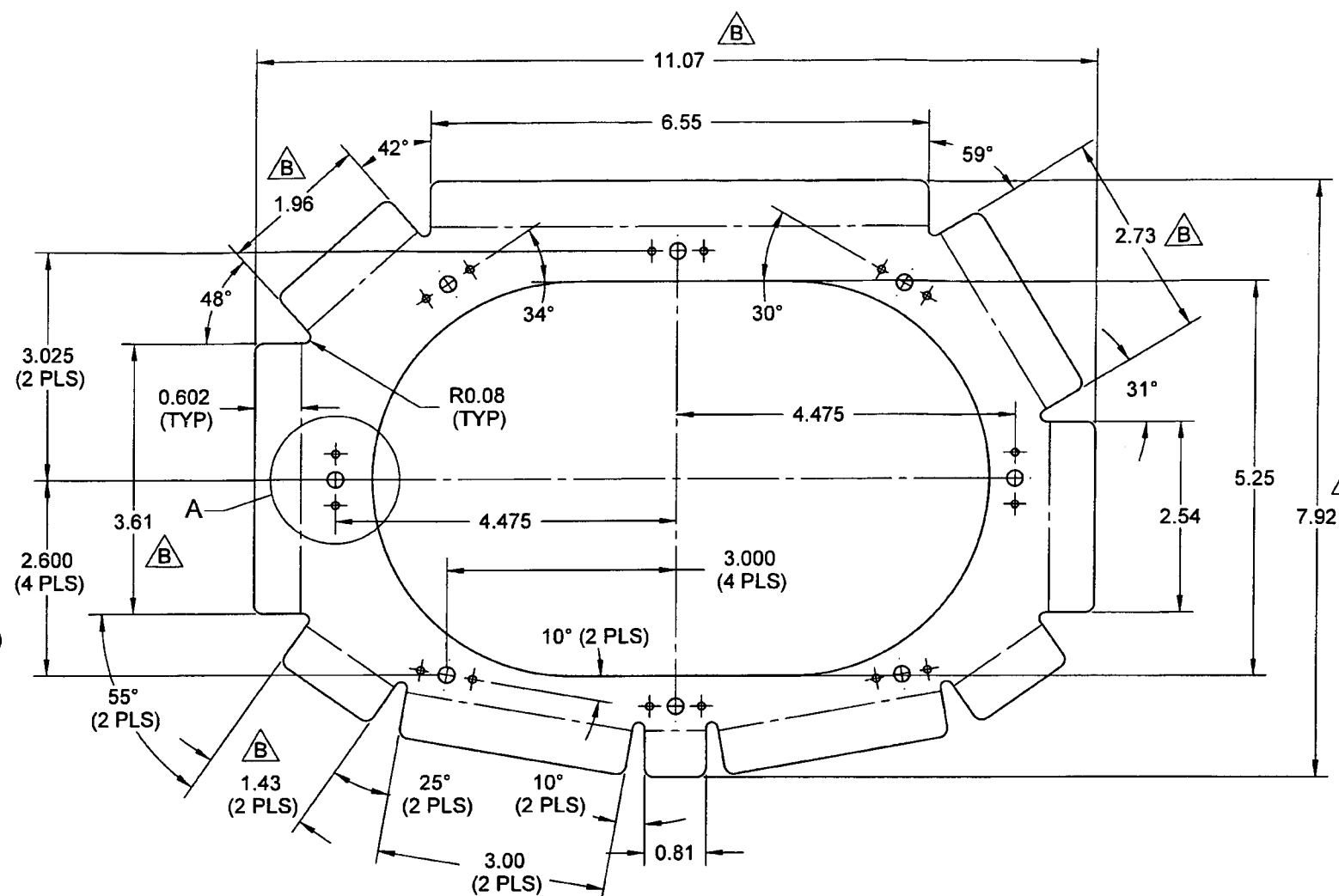
SUPPLY COPY
 1.0000
 1.0000
 UNCONTROLLED COPY
 SUBJECT TO AMENDMENT
 WITHOUT NOTICE
 WORK ORDER NO. 445830



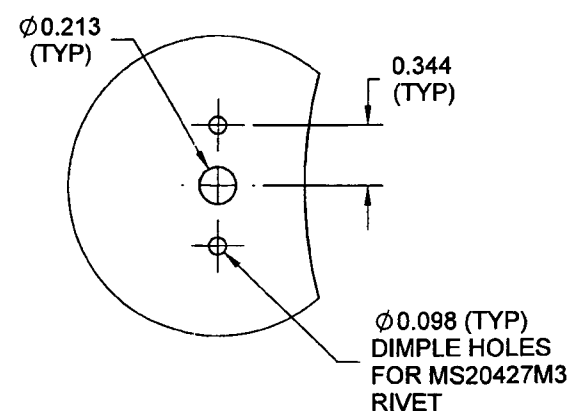
D3651-3 BASE
(MAKE FROM D3651-3F FLAT PATTERN)

NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL 0.018 (26 GAUGE) SHEET, PER MIL-S-5019 (REF. DART SPEC. M304S26GA)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.27 lbs
- 8) BEND TO 55° WHERE INDICATED



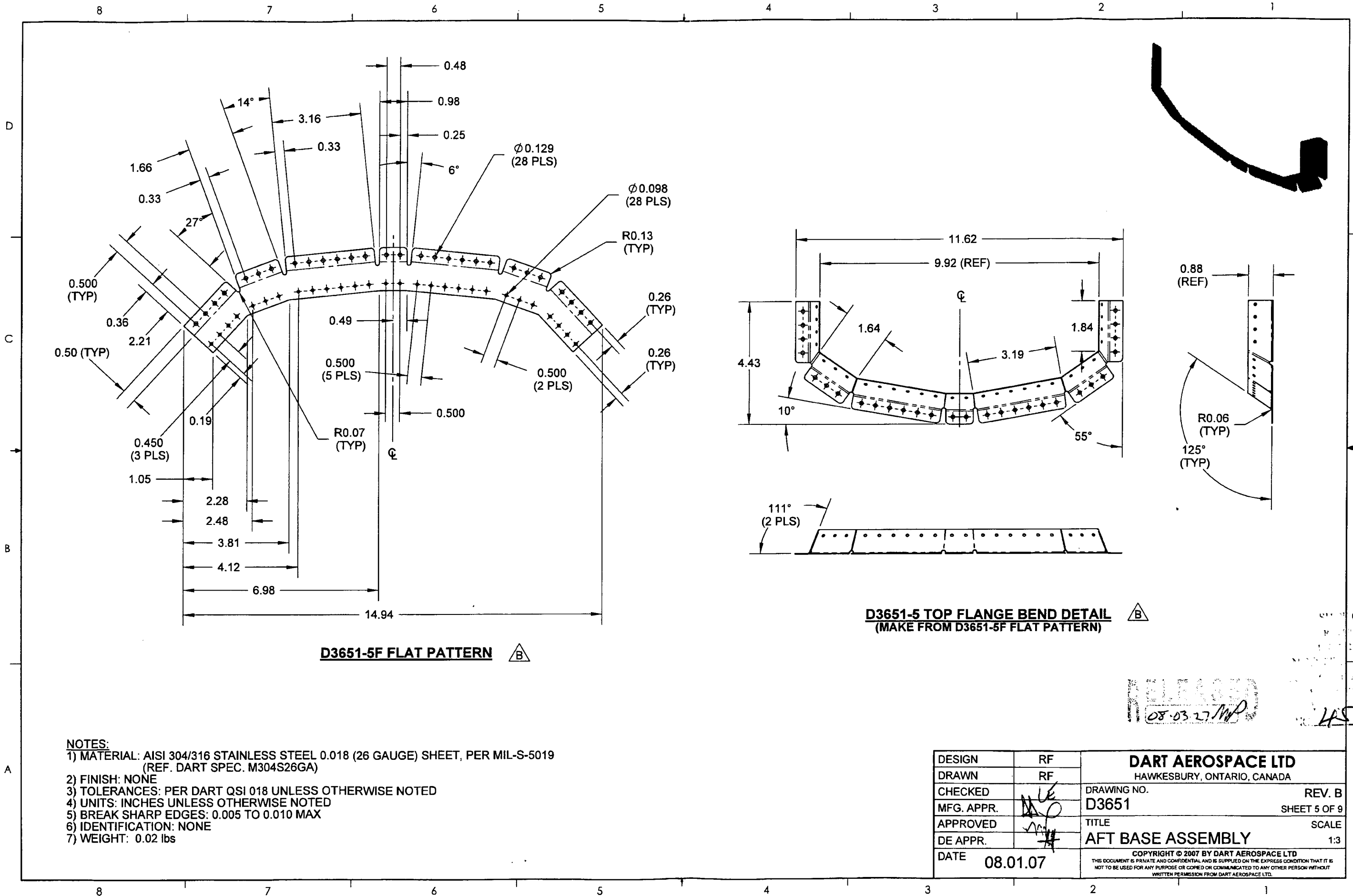
D3651-3F FLAT PATTERN



DETAIL A

SHOT COPY
RIGHT TO
REPRODUCED
UNCONTROLLED COPY
SUBJECT TO APPROVAL
WITHOUT NOTICE
WORK ORDER NO. 45830

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	UE	DRAWING NO. D3651	REV. B
MFG. APPR.	MA	SHEET 4 OF 9	
APPROVED	MA	TITLE AFT BASE ASSEMBLY	SCALE 1:2
DE APPR.		COPYRIGHT © 2007 BY DART AEROSPACE LTD	
DATE	08.01.07	THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



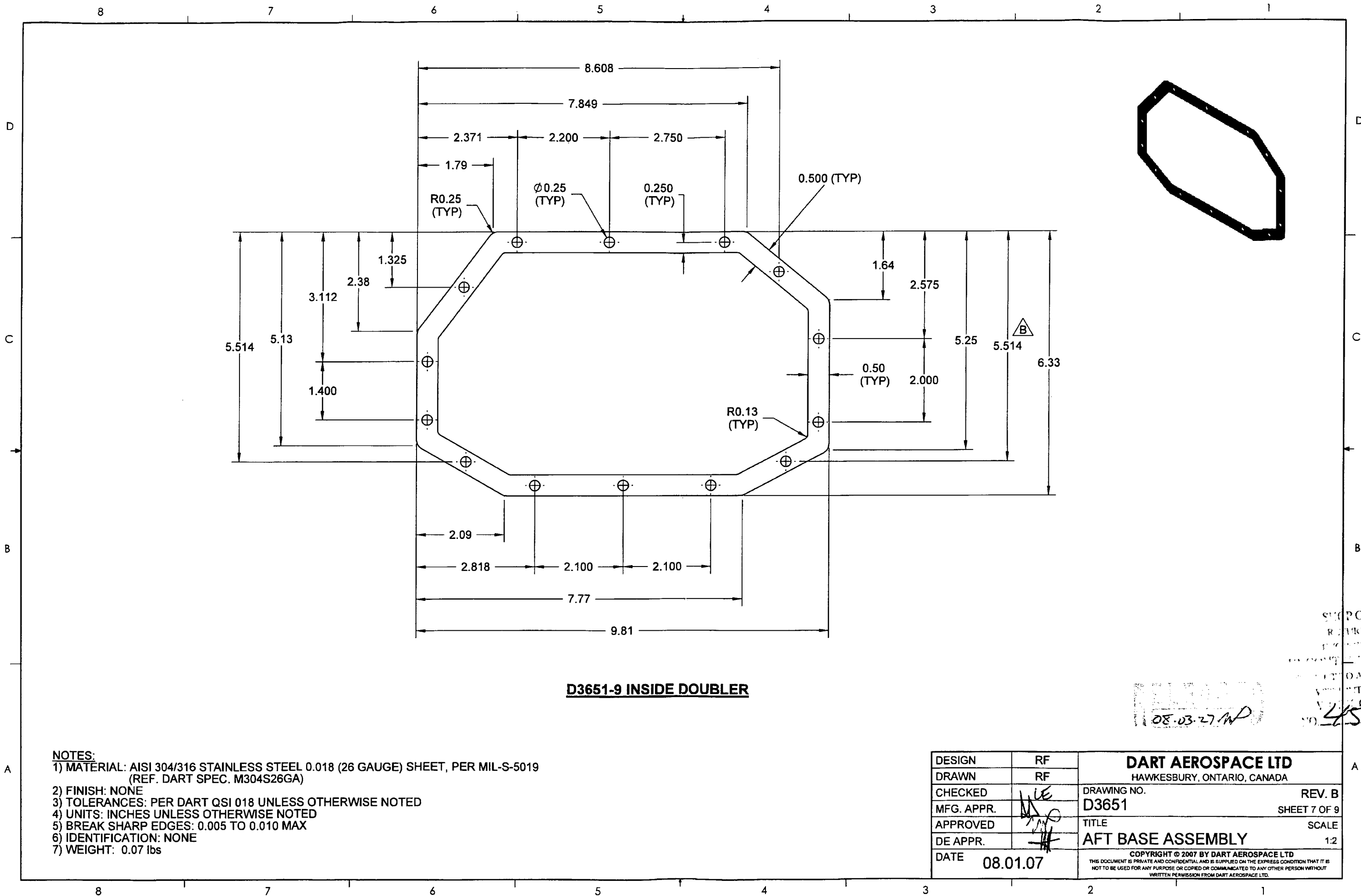


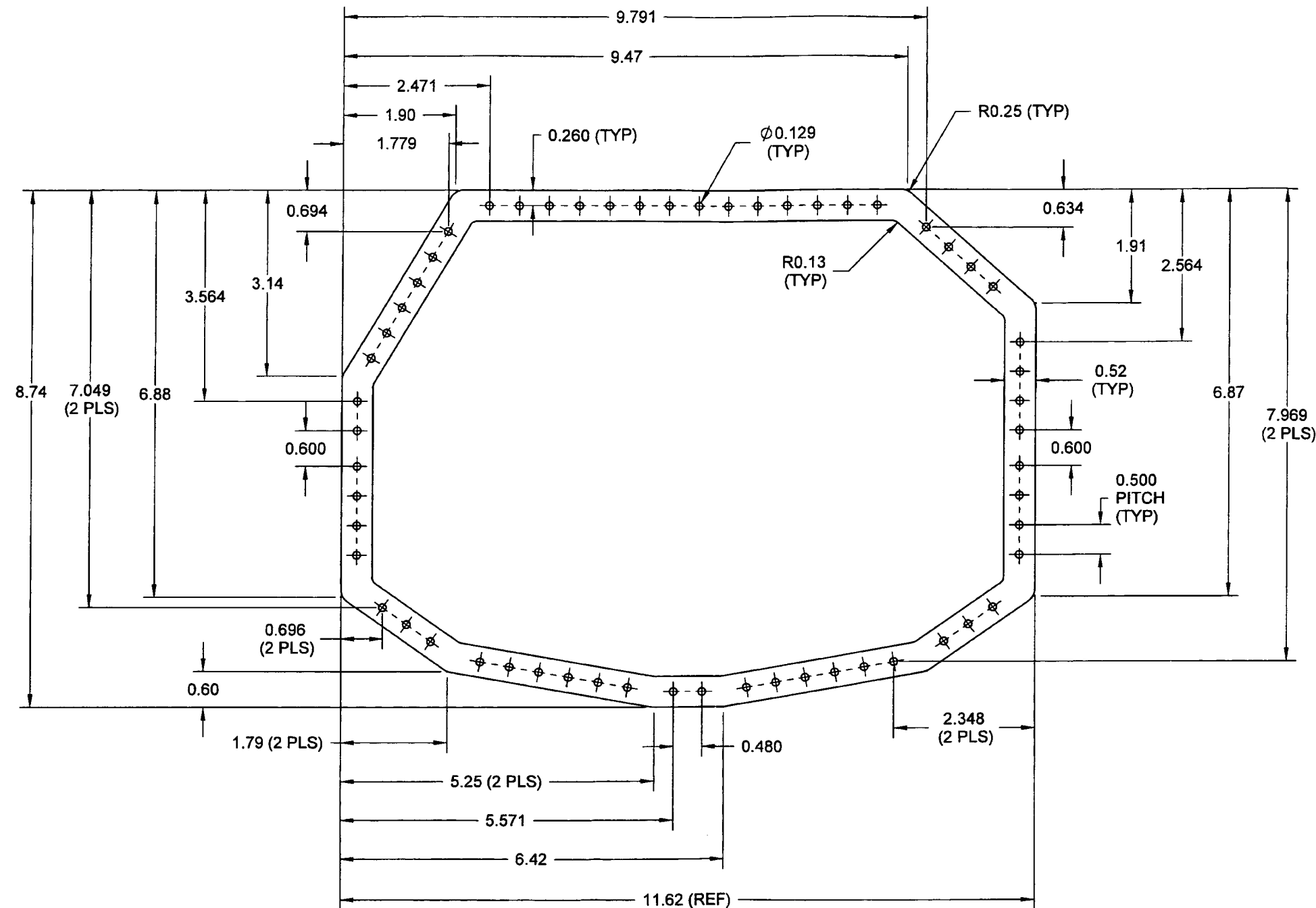
- NOTES:
- 1) MATERIAL: AISI 304/316 STAINLESS STEEL 0.018 (26 GAUGE) SHEET, PER MIL-S-5019 (REF. DART SPEC. M304S26GA)
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: NONE
 - 7) WEIGHT: 0.02 lbs



SHOP COPY
RETURN TO
ENGINEER 249
UNCONTROLLED COPY
SUBJECT TO AGREEMENT
WITHOUT NOTICE
WALKER
NO 45830

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. D3651 TITLE AFT BASE ASSEMBLY COPYRIGHT © 2007 BY DART AEROSPACE LTD <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE LTD</small>	REV. B
DRAWN	RF		SHEET 6 OF 9
CHECKED	<i>KE</i>		
MFG. APPR.	<i>MD</i>		
APPROVED	<i>[Signature]</i>		SCALE
DE APPR.			1:3
DATE 08.01.07			

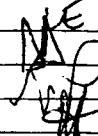




D3651-13 OUTSIDE DOUBLER B

NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL 0.018 (26 GAUGE) SHEET, PER MIL-S-5019 (REF. DART SPEC. M304S26GA)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.10 lbs

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D3651	SHEET 9 OF 9
APPROVED		TITLE	SCALE
DE APPR.		AFT BASE ASSEMBLY	1:2
DATE	08.01.07	COPYRIGHT © 2007 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT	

08-03-27 MP

45830